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Prevalence of Pulmonary Hypertension in Patients with Stage IV and Stage V Chronic Kidney Disease

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Abstract: ***It is well known that chronic kidney disease (CKD) is associated with significant morbidity and mortality predominantly due to cardiovascular complications. Recent literature report pulmonary hypertension (PH) as a common accompaniment of CKD and in majority of these cases, secondary cases of PH are not evident. In this study, we looked at the prevalence and possible risk factors of PH of stage 4 and stage 5 CKD patients with special focus on unexplained PH.***

Keywords: Chronic Kidney Disease, Pulmonary Hypertension, Cardiovascular Complications, Stage 4 and 5 CKD, Unexplained PH

1. Aim and Objective

To find out pulmonary hypertension in stage 4 and stage 5 chronic kidney disease

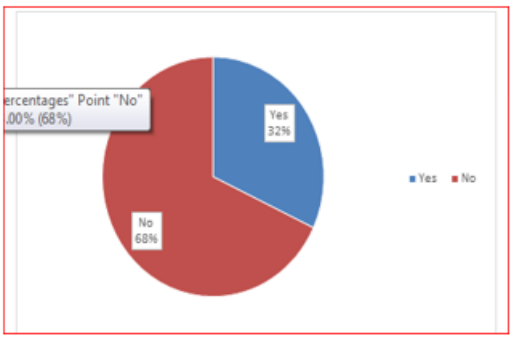
2. Methodology

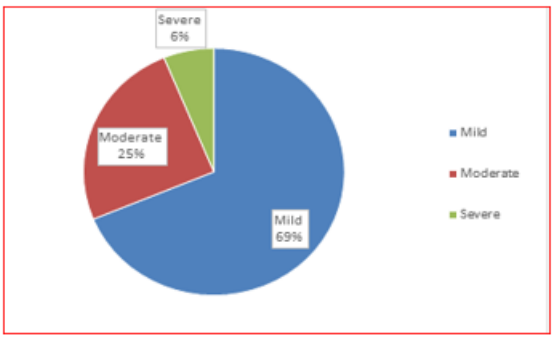
- **Study Design:** Cross - sectional study
- **Study Population:** Patients with stage 4 and stage 5 chronic kidney disease.
- **Study Setting:** Chengalpattu Medical College and Hospital.
- **Duration of Study:** 6 months From SEP 2023 TO JULY 2024
- **Sampling Method:** Convenient sampling method
- **Sample Size**: 100

Inclusion Criteria
Stage 4 and stage 5 in chronic kidney disease on HD and Conservative Management

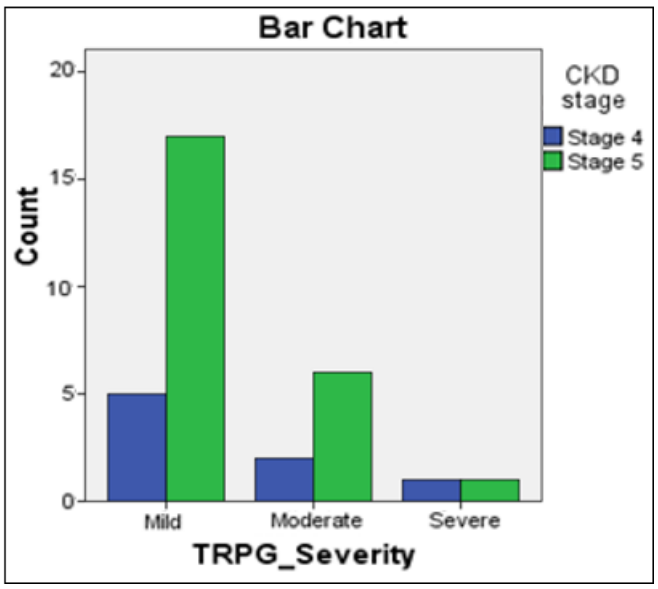
Exclusion Criteria
1) Chronic lung disease
2) Coronary artery disease
3) Congenital heart diseases
4) Connective tissue disorders.

Pulmonary Hypertension PHTN Severity





PHTN severity across CKD stages



3. Result

The overall prevalence of pulmonary hypertension was 32%. Older age, lower left ventricular ejection fraction, anemia and higher pulse pressure were independently associated with pulmonary hypertension in CKD patients.

4. Conclusion

Pulmonary hypertension is not rare in early CKD patients. Patients with older age, Anemia, Higher pulse pressure and compromised heart function were move likely to comorbid pulmonary hypertension.

Pulmonary hypertension may be sign of worse cardio vascular outcome in CKD patients

It is recommended that CKD patients should have assessment of pulmonary pressures using echocardiography and subsequent monitoring of disease progression and response to therapy.

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